

The American Mineralogist

*Journal of the Mineralogical
Society of America*

EDITOR

WALTER F. HUNT

ASSOCIATE EDITORS

MICHAEL FLEISCHER, ESPER S. LARSEN, AUSTIN F. ROGERS,
M. N. SHORT AND GEORGE TUNELL

VOLUME 35, 1950

Published bi-monthly by the Society

U OF I
LIBRARY

Composed, Printed and Bound by
The Collegiate Press
George Banta Publishing Company
Menasha, Wisconsin

CONTENTS OF VOLUME 35

NOS. 1 AND 2, JANUARY-FEBRUARY

The lazulite-scorzalite isomorphous series.....	W. T. Pecora and J. J. Fahey	1
Age of uraninite from a pegmatite near Singar, Gaya District, India.....	Arthur Holmes	19
With an isotopic analysis of lead.....	W. T. Leland and A. O. Nier	19
Three new polymorphs of zinc sulfide.....	Clifford Frondel and Charles Palache	29
Occurrence of polymorphous wurtzite in western Pennsylvania and eastern Ohio.....	David M. Seaman and Howard Hamilton	43
On the nature of the opal-like outer layer of coated diamonds.....	J. F. H. Custers	51
Arrojadite, hühnerkobelite and graftonite.....	Marie Louise Lindberg	59
Thermal study of the potash-soda feldspars.....	Milton T. Heald	77
Composition of veatchite.....	George Switzer and W. W. Brannock	90
Wherryite, a new mineral from Mammoth Mine, Arizona.....	Joseph J. Fahey, E. B. Daggett and Samuel G. Gordon	93
The crystal structure of cryptomelane. A. McL. Mathieson and A. D. Wadsley		99
Phosphate-allophane in an epidosite from North Carolina.....	Howard W. Jaffe and Alexander M. Sherwood	102
The differential thermal analysis of certain phosphates.....	Robert L. Manly, Jr.	108
Notes and news: Thermal decomposition of zinc sulfide polymorphs.....	Joan Prewitt-Hopkins and Clifford Frondel	116
The nature of "arizonite".....	J. L. Overholt, G. Vaux, and J. L. Rodda	117
The unit cell of malachite.....	Lewis S. Ramsdell and C. Wroe Wolfe	119
A New Award of the Mineralogical Society of America.....		121
Proceedings of Societies: The Crystallographic Society of America.....		122
Book reviews.....		133
New mineral names.....		135

NOS. 3 AND 4, MARCH-APRIL

An attempt to arrange silicates in the order of reaction energies at relatively low temperatures.....	John W. Gruner	137
A structural classification of fluoaluminates.....	A. Pabst	149
The crystal chemistry of montmorillonite.....	Duncan McConnell	166
Cordierite in pegmatite near Micanite, Colorado.....	E. Wm. Heinrich	173
Disorder in the mineral bornite, Cu_5FeS_4	Alfred J. Frueh, Jr.	185
Twinning in the diamond.....	Chester B. Slawson	193
Thermal analysis studies on carbonates (I): Aragonite and calcite.....	George T. Faust	207
The effect of the interlayer cations on the expansion of the mica type of crystal lattice.....	Isaac Barshad	225
Nomographs for triclinic cell computations.....	W. L. Bond	239
Studies of uranium minerals (I): Parsonite and randite.....	Clifford Frondel	245
Studies of uranium minerals (II): Liebigite and uranothallite.....	Howard T. Evans, Jr., and Clifford Frondel	251
Presentation of the Roebling Medal of the Mineralogical Society of America to Herbert E. Merwin.....	Norman L. Bowen	255
Acceptance of the Roebling Medal of the Mineralogical Society of America.....	Herbert E. Merwin	258

Memorial of Frederick Noel Ashcroft.....	F. A. Bannister	259
Memorial of Everend Lester Bruce.....	J. E. Hawley	262
Proceedings of the thirtieth annual meeting of the Mineralogical Society of America at El Paso, Texas.....	C. S. Hurlbut, Jr.	268
Correspondents, fellows and members of the Mineralogical Society of America.....		295
Mineralogical Society (London).....		320
Notes and news: Carnotite and radioactive shale in Missouri.....		
.....Garrett A. Muilenburg and Walter D. Keller		323
Synthesis of uvarovite.....	F. A. Hummel	324
Book reviews.....		328
New mineral names.....		333

NOS. 5 AND 6, MAY—JUNE

CONTRIBUTIONS TO CANADIAN MINERALOGY

*Volume 5, Part 2**Sponsored by The Walker Mineralogical Club**Edited by M. A. Peacock, Toronto*

Description and synthesis of the selenide minerals.....	J. W. Earley	337
On pseudomalachite and cornetite.....	L. G. Berry	365
X-ray diffraction data on some radioactive oxide minerals.....	Ronald J. Arnott	386
Metamict pitchblende from Goldfields, Saskatchewan, and observations on some ignited pitchblendes.....	C. E. B. Conybeare and R. B. Ferguson	401
An electron microscopic examination of synthetic tourmaline crystals.....		
.....William H. Barnes		407
A roentgenographic method for determining plagioclases.....	Fernand Claisse	412
A new method for measuring the refractive indices in micaceous minerals.....		
.....J. P. Girault		421
On parkerite and shandite and the crystal structure of $\text{Ni}_3\text{Pb}_2\text{S}_2$		
.....M. A. Peacock and John McAndrew		425
Hauchecornite.....	M. A. Peacock	440
Crystal properties of copper (II) and nickel (II) chloride coordination complexes with diethylenetriamine.....	A. G. Brook	447
Notes and news:		
Mineral occurrences in western Canada.....	R. M. Thompson	451
The probable non-existence of alaskaite.....	R. M. Thompson	456
Hydrocarbon with cinnabar in British Columbia.....	K. DeP. Watson	457
Red gold from the San Antonio gold mine, Bissett, Manitoba.....		
.....R. B. Ferguson		459
The Walker Mineralogical Club.....		461

NOS. 7 AND 8, JULY—AUGUST

Morphology and structure of endellite and halloysite.....		
.....Thomas F. Bates, Fred A. Hildebrand, and Ada Swineford		463
Synthesis of some hydrated manganese minerals.....	A. D. Wadsley	485
An occurrence of natrolite, andradite, and allanite in the Franklin Furnace quad- rangle, New Jersey.....	Charles Milton and Norman Davidson	500
An amplifier for differential thermal analysis.....	Carl W. Beck	508
Studies on uranium minerals (III): Saléeite from Schneeberg, Saxony.....		

.....	Mary E. Mrose	525
Studies on uranium minerals (IV): Johannite.....	Cornelius S. Hurlbut, Jr.	531
Thermoelectric power and electrical resistivity of minerals.....	Maria Telkes	536
An occurrence of jarosite in altered volcanic rocks of Stoddard Mountain, San Bernardino County, California.....	C. Osborne Hutton and Oliver E. Bowen	556
The crystal structure of ferroan zincian rhodochrosite.....	Ernesto E. Galloni	562
Tin and indium in mica, as determined spectrochemically.....	L. H. Ahrens and W. R. Liebenberg	571
X-ray diffraction patterns of asbestos.....	Suzanne van Dijke Beatty	579
The alternating layer sequence of rectorite.....	W. F. Bradley	590
Notes and news: Notes on arcanite, ammonian apthitalite and oxammite.....	Clifford Frondel	596
Demonstration of the double refraction of aragonite for rays traveling in the neighborhood of an optic axis.....	Reynolds M. Denning	598
Mordenite from Tintic, Utah, and the discredited mineral arduinite.....	Bronson Stringham	601
Book reviews.....		605
Mineralogical Society (London).....		609
Constitution and By-laws of the Mineralogical Society of America.....		611
Nominations of officers for 1951.....		614

NOS. 9 AND 10, SEPTEMBER—OCTOBER

"The professor".....	John C. Rabbitt	619
Intrusion relations of bahiaite from southern Norway.....	Tom. F. W. Barth	622
Metamorphosed mafic dikes of the Woodsville quadrangle, Vermont and New Hampshire.....	Marland P. Billings and Walter S. White	629
A simple technique for the study of the elasticity of crystals.....	Francis Birch	644
The making of a magmatist.....	Norman L. Bowen	651
Composition and genesis of pyroxene and garnet related to Adirondack anorthosite-marble contact zones.....	A. F. Buddington	659
Camptonite dikes near Boulder Dam, Arizona.....	Ian Campbell and Edward T. Schenk	671
Quartz veins formed by metamorphic differentiation of aluminous schists.....	Carleton A. Chapman	693
Petrography of the nickeliferous norite of St. Stephen, New Brunswick.....	K. C. Dunham	711
Paragenesis of cummingtonite and hornblende from Muuruvesi, Finland.....	Pentti Eskola	728
Synthetic quartzite.....	H. W. Fairbairn	735
The aqueous emanation from Parícutin volcano.....	W. F. Foshag	749
Studies of uranium minerals (V): phosphuranylite.....	Clifford Frondel	756
Paragenesis of the rhodolite deposit, Masons Mountain, North Carolina.....	E. Wm. Heinrich	764
Petrogenesis of katungite and its associates.....	Arthur Holmes	772
Childrenite-eosphorite series.....	C. S. Hurlbut, Jr.	793
The water content of primitive granitic magma.....	Earl Ingerson	806
Radioactivity and mineral deposits.....	N. B. Keevil	816
The Marysville granodiorite stock, Montana.....	Adolph Knopf	834
Lead-uranium ratio and possible geologic age of allanite from Greenwich, Massachusetts.....	John F. Marble	845

Geochemistry of tantalum in the Harding pegmatite, Taos County, New Mexico	Arthur Montgomery	853
Some hornfels from Saxony and the problem of metamorphic facies	Paul Niggli	867
Fayalite at Rockport, Massachusetts	Charles Palache	877
Remarks on crystallographic nomenclature	M. A. Peacock	882
Structure and mineralogy of the Golconda pegmatite, Minas Gerais, Brazil	W. T. Pecora, George Switzer, A. L. Barbosa, and A. T. Meyers	889
Determination of all principal indices of refraction on difficultly oriented minerals by direct measurement	John L. Rosenfeld	902
The dark-field stereoscopic microscope for mineralogic studies	Clarence S. Ross	906
Miserite from Arkansas: a renaming of natroxonotlite	Waldemar T. Schaller	911
Rock-magma and rock-species	S. J. Shand	922
The Nababep Near West tungsten mine, South Africa	P. G. Söhnge	931
On the temperature-pressure-concentration diagram for binary systems in which the only crystalline phases are the pure components	George Tunell	941
Melonite in Boulder County, Colorado	Ernest E. Wahlstrom	948

Published works by Esper S. Larsen, Jr., compiled by Mildred E. Fitz	954
--	-----

NOS. 11 AND 12, NOVEMBER—DECEMBER

The atomic arrangement and chemical composition of krennerite	George Tunell and K. J. Murata	959
Differential thermal analysis curves of carbonate minerals	Carl W. Beck	985
Searlesite from the Green River Formation of Wyoming	Joseph J. Fahey	1014
With x-ray notes by	Joseph M. Axelrod	1014
Studies of uranium minerals (VI): Walpurgite	Howard T. Evans	1021
Zincian rockbridgeite	Marie Louise Lindberg and Clifford Frondel	1028
The effect of various impurities on the crystallization of amorphous silicic acid	L. S. Birks and J. H. Schulman	1035
Significance of the orthoclase-albite-anorthite, and the NaAlSiO_4 - KAlSiO_4 - SiO_2 equilibrium diagrams in igneous petrogeny	Riad A. Higazy	1039
Crestmore sky blue marble, its linear thermal expansion and color	Joseph L. Rosenholtz and Dudley T. Smith	1049
New data on lossenite, louderbackite, zepharovichite, peganite, and sphaerite	Richard M. Pearl	1055
Nontronite at Bingham, Utah	Bronson Stringham and Allen Taylor	1060
Correlation of physical properties and chemical composition in the plagioclase, olivine, and orthopyroxene series	Arie Poldervaart	1067
Mineralogical Society (London)		1080
Book reviews		1082
Notes and news: Cordierite in pegmatites—an Addendum	E. Wm. Heinrich	1089
Correction—Wiring diagram of an amplifier for differential thermal analysis	Carl W. Beck	1090
New Mineral names		1091
Index to volume 35; Title page; Table of contents		1095

INDEX TO VOLUME 35

Leading articles are in **bold face** type; notes, abstracts, and reviews are in ordinary type. Only minerals for which definite data are given are indexed.

Acmitic pyroxenes, optical properties and composition of. (Sabine).....	321	din).....	126
Adams, C. E.....	289	Anthophyllite, diffraction pattern.....	587
Adularia, triclinic, geometry of. (Laves).....	285	Antimony oxides, naturally occurring. (Mason, Vitaliano).....	286
Adularia, triclinic, optics of. (Chaisson).....	279	Aragonite and calcite; thermal analysis studies on carbonates (I). (Faust).....	207
Aegirine-granulites of Glen Lui, Braemar, Aberdeenshire. (McLachlan).....	322	Arcanite, ammonium apthitalite and oxammite. (Fron del).....	596
Agrell, S. O.....	1080	Arduinite, discredited.....	601
Aguilarite.....	343	"Arizonite," nature of. (Overholt, Vaux, Rodda).....	117
Ahrens, L. H. and Liebenberg, W. R. Tin and indium in mica, as determined spectrochemically.....	571	Arnott, R. J. X-ray diffraction data on some radioactive oxide minerals.....	386
Alaskaite, probable non-existence of. (Thompson).....	456	Arrojadite, hühnerkobelite and graftonite. (Lindberg).....	59
Albite, high-temperature. (Tuttle, Bowen).....	290	Asbestos, x-ray diffraction patterns of. (Beatty).....	579
Alkali-feldspars, unusual, in central Australian charnockitic rocks. (Wilson).....	609	Asbophite. (Syromyatnikov).....	333
Allanite from Greenwich, Mass., lead-uranium ratio and probable age of. (Marble).....	845	Ashcroft, Frederick N., memorial of. (Bannister).....	259
Allanite occurrence in Franklin Furnace quadrangle, New Jersey. (Milton, Davidson).....	500	Assimilation (?) of micaceous schist by diabase. (Tomlinson).....	290
Allen, V. T.....	277	Axelrod, J. M. X-ray notes on searlesite.....	1014
Allophane-phosphate in epidosite from North Carolina. (Jaffe, Sherwood).....	102	Bahiaite from southern Norway, intrusive relations of. (Barth)...	622
Ammonium apthitalite. (Fron del).....	596	Bailly, R. J.....	277
Ammonium dihydrogen phosphate, structure of. (Frazer).....	125	Bandy, M. C.....	135
Amplifier for differential thermal analysis. (Beck).....	508, 1090	Bannister, F. A. Memorial of Frederick N. Ashcroft.....	259
Andradite occurrence in Franklin Furnace Quadrangle, N. J. (Milton, Davidson).....	500	-----.....	135, 320
Andreatta, C.....	334	Barbosa, A. L., Myers, A. T., with Pecora, W. T., and Switzer, G., Golconda pegmatite, Minas Geraes, Brazil.....	889
Annealing twins, origin of. (Mad-		Barnes, W. H. Electron microscopic examination of synthetic tourmaline crystals.....	407
		Barshad, I. Effect of interlayer cations on expansion of the mica type of crystal lattice.....	225

- Barth, T. F. W. Intrusive relations of bahliaite from southern Norway..... 622
- Basaluminite and hydrobasaluminite, two new minerals from Northamptonshire. (Hollingworth, Bannister)..... 320
- Bates, T. F., Hildebrand, F. A. and Swineford, A. Morphology and structure of endellite and halloysite..... 463
- Bauer, W. H..... 128
- Beatty, S. van D. X-ray diffraction patterns of asbestos..... 579
- Beck, C. W. Amplifier for differential thermal analysis..... 508, 1090
- . Differential thermal analysis curves of carbonate minerals..... 985
- . Wiring diagram of an amplifier for differential thermal analysis..... 1090
- Berry, L. G. Pseudomalachite and cornetite..... 365
- Beryl at Mt. Mica, Maine. (Hurlbut)..... 283
- Berzelianite..... 351
- Big Bend National Park, petrology (Lonsdale, Maxwell)..... 286
- Billings, M. P. and White, W. S. Metamorphosed mafic dikes of Woodville quadrangle, Vermont and New Hampshire... 629
- Birch, F. Simple technique for study of elasticity of crystals.. 644
- Birks, L. S. and Schulman, J. H. Effect of impurities on crystallization of amorphous silicic acid..... 1035
- Bond, W. L. Nomographs for triclinic cell computations..... 239
- 131
- Bor, L..... 321
- Bornite, Cu_5FeS_4 , disorder in. (Frueh)..... 128, 185
- Bornite from Illogan, Cornwall, crystal structure of. (Tunell, Adams)..... 289
- Bowen, N. L. The making of a magmatist..... 651
- . Presentation of the Roebling Medal of the Mineralogical Society of America to Herbert E. Merwin..... 255
- 278, 290
- Bowen, O. E. with Hutton, C. O. Occurrence of jarosite in altered volcanic rocks of Stoddard Mts., San Bernardino County, Calif..... 556
- Bowleyite (Rowledge, Hayton).... 1091
- Bradley, W. F. Alternating layer sequence of rectorite..... 278, 590
- Brannock, W. W. with Switzer, G. Composition of veatchite..... 90
- Bravais, M. A. On the systems formed by points regularly distributed on a plane or in space. Book review..... 1087
- Brook, A. G. Crystal properties of copper (II) and nickel (II) chloride coordination complexes with diethylenetriamine..... 447
- Bruce, Everend L., memorial of. (Hawley)..... 262
- Buddington, A. F. Composition and genesis of pyroxene and garnet related to Adirondack anorthosite-marble contact zones.... 659
- Buerger, M. J..... 122, 278, 290
- Burri, C. and Niggli, P. Die junger Eruptivgesteine des Meditteranen Orogens. Part 2. Der Chemismus der postphiolitischen Eruptivgesteine. Book review..... 606
- Cacoxenite from Hellertown, Pennsylvania. (Gordon)..... 132
- Calcite-aragonite, thermal analysis studies on, (Faust)..... 207
- Calc-silicate skarn veins in limestone of Lough Anure, Co. Dougal. (Pitcher)..... 320
- Cameron, E. N., Jahns, R. H., McNair, A. H., and Page, L. R. Internal structure of granite pegmatites. Book review..... 330
- Campbell, C. D..... 280

- Campbell, I. and Schenk, E. T.
 Camptonite dikes near
 Boulder Dam, Arizona..... 671
- Camptonite dikes near Boulder
 Dam, Ariz. (Campbell,
 Schenk)..... 671
- Carbonate minerals, differential
 thermal analysis curves of.
 (Beck)..... 985
- Carnotite and radioactive shale in
 Missouri. (Muilenburg, Kel-
 ler)..... 323
- Carr, D. R..... 284
- Cassiterite, spectrochemical anal-
 ysis..... 898
- Chaisson, U..... 279
- Chapman, C. A. Quartz veins
 formed by metamorphic differ-
 entiation of aluminous schists. 693
- Chayes, F. Supplementary chap-
 ters on "Statistical analyses"
 in Structural petrology of de-
 formed rocks by Fairbairn.
 Book review..... 1082
- Childrenite-eosphorite series.
 (Hurlbut)..... 793
- Clabaugh, S. E..... 279
- Claisse, F. Roentgenographic
 method for determining plagio-
 clases..... 412
- Claringbull, G. F..... 609
- Clausthalite..... 356
- Clinopyroxenes of Skaergaard in-
 trusion, East Greenland.
 (Muir)..... 609
- Cloos, E. Book review..... 1085
- Collophane in Thames gravel.
 (Claringbull, Ellis)..... 609
- Cone-axis diffraction patterns.
 (Fisher)..... 281
- Conybeare, C. E. B. and Ferguson,
 R. B. Metamict pitchblende
 from Goldfields, Saskatche-
 wan, and observations on
 some ignited pitchblendes.... 401
- 280
- Cookeite, optical data..... 897
- Cordierite in pegmatite near
 Micanite, Colorado. (Hein-
 rich)..... 173, 1089
- Cornetite. (Berry)..... 365
- Crestmore sky blue marble, its
 linear thermal expansion and
 color. (Rosenholtz, Smith)... 1049
- Crocidolite, diffraction pattern.... 586
- Crookesite..... 347
- Cryptomelane, crystal structure of.
 (Mathieson, Wadsley)..... 99
- Crystal habit modification of amino
 acids and NaCl. (Fenimore,
 Thrailkill)..... 128
- Crystal optics on microscopic views,
 a monoclinic case. (O'Brien,
 Donnay)..... 129
- Crystal properties of copper (II)
 and nickel (II) chloride coordi-
 nation complexes with di-
 ethylenetriamine (Brook).... 447
- Crystallographic nomenclature, re-
 marks on. (Peacock)..... 882
- Crystallographic Society of
 America, proceedings of..... 122
- Crystallographic symmetry in re-
 ciprocical space and vector space
 (Buerger)..... 122
- Csiklovaite (Koch, Grasselly).... 333
- Cummingtonite and hornblende
 from Muurvesi, Finland,
 paragenesis of. (Eskola).... 728
- Cupriferous Lewisian Para-gneiss.
 (Harry)..... 1081
- Custers, J. F. H. Nature of the
 opal-like outer layer of coated
 diamonds..... 51
- Cymrite. (Smith, Bannister, Hey). 135
- Dacites from Laughlin Peak, Col-
 fax Co., N. Mex. (Stobbe).... 288
- Daggett, E. B. and Gordon, S. G.
 with Fahey, J. J. Wherryite, a
 new mineral from Mammoth
 Mine, Arizona..... 93
- Dark-field stereoscopic microscope
 for mineralogic studies
 (Ross)..... 906
- Davidson, N. with Milton, C. Oc-
 currence of natrolite, andra-
 dite, and allanite in Franklin
 Furnace Quadrangle, N. J.... 500
- Denning, R. M. Demonstration of

- double refraction of aragonite for rays travelling in the neighborhood of an optic axis. . . . 598
- Determination of principle indices of refraction on difficultly oriented minerals by direct measurement. (Rosenfeld)** 902
- Diamonds, coated, opal-like outer layer of. (Custers)** 51
- Diamond impregnated tools for rock-slicing. (Dunham) 609
- Diamond, maximum hardness vectors in. (Slawson, Kohn) 131
- Diamond, twinning in. (Slawson)** . . 193
- Dichroscopes for microscope stage and ocular. (Dollar) 321
- Differential thermal analysis, amplifier for. (Beck)** 508, 1090
- Differential thermal analysis curves of carbonate minerals (Beck)** 985
- Differential thermal analysis of certain phosphates. (Manly)** . . 108
- Discredited minerals. 136
- Disorder in minerals, general aspects of. (Buerger) 278
- Disorder in sulfides. (Frueh) 282
- Dollar, A. T. J. 321
- Donnay, G. H. and Donnay, J. D. H. Book review 129
- Donnay, J. D. H. 123, 129
- Double refraction of aragonite for rays traveling in neighborhood of an optic axis, demonstration of. (Denning) 598
- Dunham, K. C. Petrography of nickeliferous norite of St. Stephen, New Brunswick** 711
- 609
- Duplexite. (Rowledge, Hayton) . . 1092
- Earley, J. W. Description and synthesis of selenide minerals** . . 337
- Ehrmann, M. L. and Whitlock, H. P. The story of jade. Book review 133
- Einführung im die Gefügekunde der geologischen Körper. (Sander) Book review 1085
- Elasticity of crystals, simple technique for study of. (Birch)** . . . 644
- Ellis, S. E. 609
- Endellite and halloysite, morphology and structure of. (Bates, Hildebrand, Swineford)** 463
- Eosphorite. (Hurlbut)** 794
- Epidote, crystallography of. (Hornstra, Terpstra) 321
- Eskdal No. 2 boring, East Yorkshire, petrology of evaporites. (Stewart) 1080
- Eskola, P. Paragenesis of cumingtonite and hornblende from Muuruvesi, Finland** 728
- . Kristalle und Gesteine. Book review 328
- Eucairite 345
- Eucolite from southern New Mexico. (Clabaugh) 279
- Eudialyte and eucolite from southern New Mexico. (Clabaugh) . . 279
- Euxenite, x-ray data 396
- Evans, H. T. Jr. Uranium minerals (VI) Walpurgite 1021
- , and Frondel, C. Uranium minerals (II) Liebigit and uranothallite 251
- Fahey, J. J. Searlesite from Green River formation of Wyoming** . 1014
- , Daggett, E. B. and Gordon, S. G. Wherryite, a new mineral from Mammoth Mine, Arizona 93
- , with Pecora, W. T. Lazulite-scorzalite isomorphous series 1, 327
- Fairbairn, H. W. Structural petrology of deformed rocks. Book review** 1082
- . Synthetic quartzite 280, 735
- Faleev, P. V. 333
- Faust, G. T. Thermal analysis studies on carbonates (I) Aragonite and calcite** 207
- . Book review 332
- Fayalite at Rockport, Mass. (Palache)** 877
- Fenimore, C. P. 128
- Ferguson, R. B. Red gold from San**

- Antonio gold mine, Bissett, Manitoba..... 459
- with Conybeare, C. E. B. Metamict pitchblende from Goldfields, Saskatchewan, and observations on some ignited pitchblendes..... 401
- Fisher, D. J..... 281
- Fluoaluminates, structural classification of. (Pabst)..... 149
- Fluorescent feldspar and zircon as petrological aids. (Wilson).... 609
- Fornaseri, M..... 335
- Foshag, W. F. Aqueous emanation from Paricutin volcano..... 749
- Fourier transformer, two-dimensional. (Pepinsky)..... 124
- Franquenite-slavikite. (Van Tassel)..... 136
- Frazer, B. C..... 125
- Frequency distribution of optical properties of crystals. (Kirkpatrick)..... 129
- Friedman, I..... 281
- Fron del, C. Arcanite, ammonium apthitalite and oxammite... 596
- . Uranium minerals (I) Parsonite and randite..... 245
- . Uranium minerals (V) Phosphuranylite..... 756
- . with Evans, H. T. Uranium minerals (II) Liebigite and uranothallite..... 251
- , with Lindberg, M. L. Zincian rockbridgeite..... 1028
- , and Palache, C. Three new polymorphs of zinc sulfide... 29
- with Prewitt-Hopkins, J. Thermal decomposition of zinc sulfide polymorphs..... 116
- 281, 320
- Frueh, A. J. Jr. Disorder in the mineral bornite, Cu_5FeS_4 ... 128, 185
- 282
- Gabbro-limestone contact near Camphouse, Ardnamurchan (Agrell)..... 1080
- Gallium and germanium replacements in synthetic feldspars, significance of. (Goldsmith)... 282
- Galloni, E. E. Crystal structure of ferroan zincian rhodochrosite. 562
- Garnet and pyroxene, composition and genesis of. (Buddington).. 659
- Garnet crystals from Cairnie, Aberdeenshire. (Stewart)..... 1080
- Garnet, polycomponent, physical analysis of. (Levin)..... 285
- Geology and economics of New Mexico iron-ore deposits. (Kelley) Book review..... 606
- Gerasimovsky, V. I..... 1092
- Girault, J. P. New method for measuring refractive indices in micaceous minerals..... 421
- Golconda pegmatite, Minas Gerais, Brazil, structure and mineralogy of. (Pecora, Switzer, Barbosa, Myers)..... 889
- Goldsmith, J. R..... 282
- Goodspeed, G. E..... 282
- Gordon, I..... 128
- Gordon, S. G. with Fahey, J. J. and Daggett, E. B. Wherryite, a new mineral from Mammoth Mine, Arizona..... 93
- 132
- Graftonite. (Lindberg)..... 59
- Graphite structure, problem of. (Lukesh, Pauling)..... 125
- Grasselly, J..... 333
- Gruner, J. W. Attempt to arrange silicates in the order of reaction energies at relatively low temperatures..... 137
- Guanajuatite..... 362
- Halloysite and endellite, morphology and structure of. (Bates, Hildebrand, Swineford)..... 463
- Hamburger, G. E..... 123
- Hamilton, H. with Seaman, D. M. Occurrence of wurtzite polymorphs in western Pennsylvania and eastern Ohio..... 43
- Harker-Kasper inequalities, derivation of. (MacGillavry)..... 123
- Harry, W. T..... 321, 1081
- Hauchecornite. (Peacock)..... 287, 440

- Hauptman, H. 123
- Hawley, J. E. Memorial of Everend L. Bruce 262
- Hayton, J. D. 1091
- Heald, M. T. Thermal study of potash-soda feldspars. 77
- Heinrich, E. W. Cordierite in pegmatite near Micanite, Colorado. 173, 1089
- . Paragenesis of rhodolite deposit, Masons Mountain, N. Car. 764
- . Book reviews. 133, 329, 330, 605, 606, 607, 1082
- Herzenberg, R. 334
- Hey, M. H. 135
- Higazy, R. A. Orthoclase-albite-anorthite, and the $\text{NaAlSi}_3\text{O}_8$ - KAlSi_3O_8 - SiO_2 equilibrium diagrams. 1039
- Hildebrand, F. A. and Swineford, A. with Bates, T. F. Morphology and structure of endellite and halloysite. 463
- 283
- Holke, K. A. 277
- Hollingworth, S. E. 320
- Holmes, A. Petrogenesis of kungurite and its associates. 772
- . Age of uraninite from pegmatite near Singar, Gaya District, India. 19
- Holser, W. T. Book review. 328
- Hornfels from Saxony and the problem of metamorphic facies (Niggli). 867
- Hornstra, J. 321
- Hühnerkobelite. (Lindberg). 59
- Hummel, F. A. Synthesis of uvarovite. 324
- Hurlbut, C. S., Jr. Childrenite-eosphorite series. 793
- . Johannite. 531
- 283
- Hutton, C. O. and Bowen, O. E. Occurrence of jarosite in altered volcanic rocks of Stoddard Mt., San Bernardino Co. Cal. 556
- Hydrobasaluminite. 320
- Hydrocarbon with cinnabar in British Columbia. (Watson). 457
- Hydroxyl in minerals. (Keller, Pickett). 284
- Illidromica (Andreatta). 334
- Indium in mica, as determined spectrochemically. (Ahrens, Liebenberg). 571
- Infra-red light, microscope and refractometer for. (Bailly, Holke). 277
- Infrared microscopy. (Perrine, McCrone). 130
- Ingerson, E. Water content of primitive granitic magma. 806
- . Book review. 1082
- Interlayer cations, effect on expansion of mica type crystal lattice. (Barshad). 225
- Internal structure of granitic pegmatites. (Cameron, Jahns, McNair, Page) Book review. 330
- Introduction to crystallography. (Phillips) Book review. 332
- Irwin district of Colorado, geology of. (Socolow). 288
- Isakov, E. N. 334
- Iskyul, E. V. 333
- Isotopic analysis of lead. (Leland, Nier). 19
- Jadeite problem. (Yoder). 291
- Jaffe, H. W. and Sherwood, A. M. Phosphate-allophane in epidosite from North Carolina. 102
- 284
- Jahns, R. H., McNair, A. H. and Page, L. R. with Cameron, E. N. Internal structure of granitic pegmatites. Review. 330
- James, R. W. Optical principles of the diffraction of x-rays. Book review. 1086
- Jarosite occurrence in altered volcanic rocks of Stoddard Mt., San Bernardino Co., Calif. (Hutton, Bowen). 556
- Johannite. (Hurlbut). 531
- Jungen Eruptivgesteine des Medi-

- terranean Orogens. Part 2. Der Chemismus der postophiolitischen Eruptivgesteine. (Burri, Niggli) Book review..... 606
- Karle, J..... 123
- Katungite and its associates, petrogenesis of. (Holmes)..... 772**
- Keevil, N. B. Radioactivity and mineral deposits..... 816**
- Keller, W. D. with Muilenburg, G. A. Carnotite and radioactive shale in Missouri..... 323
 ————..... 284
- Kelley, V. C. Geology and economics of New Mexico iron ore deposits. Book review.... 606
- Kinsolving, M. R..... 127
- Kirkpatrick, A. F..... 129
- Klockmannite..... 360
- Knopf, A. Marysville granodiorite stock, Montana..... 834**
- Koch, S..... 333
- Kohn, J. A..... 125, 131
- Kraus, E. H. Book review..... 133
- Krenner, J..... 334
- Krennerite, atomic arrangement and chemical composition (Tunell, Murata)..... 959**
- Kristalle und Gesteine. (Eskola) Book review..... 328
- Kronberg, M. L..... 126
- Kulp, J. L..... 284, 1081
- Larsen, E. S. Jr., published works by. (Fitz)..... 954
- Lattice rotations permitted by short displacements of lattice points. (Kronberg, Wilson)... 126
- Laves, F..... 127, 285
- Lazulite-scorzalite isomorphous series. (Pecora, Fahey)..... 1, 327**
- Leland, W. T. and Nier, A. O. Isotopic analysis of lead..... 19
- Leucite-SiO₄-FeO system. (Roeder)..... 288
- Leucoxene problem. (Allen)..... 277
- Leverenz, H. W. Introduction to luminescence of solids. Book review..... 1087
- Levin, S. B..... 285
- Liebenberg, W. R. with Ahrens, L. H. Tin and indium in mica, as determined spectrochemically..... 571**
- Liebigite and uranothallite. Uranium minerals (II). (Evans, Frondel)..... 251**
- Lindberg, M. L. Arrojadite, hühnerkobelite and graftonite.... 59**
 ———, and Frondel, C. Zincian rockbridgeite..... 1028
- Llallagualite. (Bandy)..... 135
- Lomonosovite. (Gerasimovsky)... 1092
- Long, H. M..... 132
- Lonsdale, J. T..... 286
- Lossenite, louderbackite, zephrovichite, peganite and sphalerite, new data on. (Pearl).... 1055**
- Louderbackite, new data on.... 1055
- Lovering, T. S. Rock alteration as a guide to ore—East Tintic District, Utah, Book review.. 329
- Lukesh, J. S..... 125
- Luminescence of solids. (Leverenz) Book review..... 1087
- Lynd, L. E..... 127
- MacGillavry, C. H..... 123, 127
- Maddin, R..... 126
- Mafic dikes, metamorphosed, Woodville Quadrangle, Vermont and New Hampshire. (Billings, White)..... 629**
- Magmatist, making of a. (Bowen). 651**
- Makas, A. S..... 130
- Malachite, unit cell of. (Ramsdell, Wolfe)..... 119
- Manganese minerals, hydrated, synthesis of (Wadsley)..... 485**
- Manganese oxide minerals, thermal study of. (Kulp, Perfetti).... 1081
- Manganotantalite, crystallography, x-ray, and spectrochemical analysis..... 899
- Manly, R. L., Jr. Differential thermal analysis of certain phosphates..... 108**
- Marble, J. P. Lead-uranium ratio**

- and possible geologic age of
allanite from Greenwich,
Mass. 845
- Marysville granodiorite stock,
Montana. (Knopf) 834
- Maslenitzky, I. N. 333
- Mason, B. 286
- Mathieson, A. McL. and Wadsley,
A. D. Crystal structure of
cryptomelane 99
- Maxwell, R. A. 286
- McAndrew, J. with Peacock, M. A.
Parkerite and shandite, and
crystal structure of $\text{Ni}_3\text{Pb}_2\text{S}_2$. 425
- McConnell, D. Crystal chemistry of
montmorillonite 166
- McCrone, W. C. 130
- McLachlan, G. R. 322
- McNair, A. H., Page, L. R. with
Cameron, E. N. and Jahns, R.
H. Internal structure of gra-
nitic pegmatites. Review. 330
- Measurement of geologic time, re-
port of Committee on. (Re-
view) 607
- Melonite in Boulder Co., Col.
(Wahlstrom) 290, 948
- Merker, L. 127
- Merwin, H. E. Acceptance of Roeb-
ling Medal of the Mineralogical
Society of America. 258
- Mica type of crystal lattice, effect of
interlayer cations on expansion
of. (Barshad) 225
- Micaceous minerals, new method
for measuring refractive in-
dices in. (Girault) 421
- Microcline, twinning in. (Laves) ... 127
- Microlite, physical properties and
spectrochemical analysis. 900
- Microlite (ignited), x-ray data. 391
- Midgley, H. G. 1080
- Milton, C. and Davidson, N. Oc-
currence of natrolite, andra-
dite, and allanite in Franklin
Furnace quadrangle, N. J. 500
- 287
- Mineral occurrence in western
Canada. (Thompson) 451
- Mineralogical Society of America:
Constitution and By-laws. 611
- List of Correspondents, fellows
and members. 295
- New award. 121
- Nominations of officers for 1951. 614
- Proceedings of the 30th annual
meeting at El Paso, Texas. 268
- Roebing Medal—Presentation
and acceptance. 255, 258
- Mineralogical Society (London) ...
..... 320, 609, 1080
- Mineralogische Tabellen. (Strunz)
Book review. 608
- Miserite from Arkansas: a renam-
ing of natroxonotlite. (Schal-
ler) 911
- Montgomery, A. Geochemistry of
tantalum in Harding pegma-
tite, Taos Co., New Mexico... 853
- Montesite. (Herzenberg) 334
- Montmorillonite, crystal chemistry
of. (McConnell) 166
- Moore, C. H. 127, 128
- Mordenite from Tintic, Utah, and
the discredited mineral arduin-
ite. (Stringham) 601
- Morganite, optical properties. 897
- Mrose, M. E. Uranium minerals
(III); Saléeite from Schnee-
berg, Saxony. 525
- Muilenburg, G. A. and Keller, W.
D. Carnotite and radioactive
shale in Missouri. 323
- Muir, I. D. 609
- Mullite, flame fusion synthesis of
(Bauer, Gordon, Moore) 128
- Murata, K. J. with Tunell, G.
Atomic arrangement and
chemical composition of kren-
nerite 959
- Murdoch, J. 287
- Myers, A. T. with Pecora, W. T.,
Switzer, G. and Barbosa, A. L.
Golconda pegmatite, Minas
Gerais, Brazil. 889
- Nababeep Near West tungsten
mine, S. Africa. (Söhnge) 931
- Natrolite, andradite and allanite,
occurrence in Franklin Fur-
nace quadrangle, New Jersey.
(Milton, Davidson) 500

- Natroxonotlite, renaming of.**
 (Schaller)..... 911
- Naumannite**..... 340
- Nepheline-carnegieite transformation, effect of potassium on.**
 (Washken, Buerger)..... 290
- Nesquehonite, twinning in.** (Kinsolving, MacGillavry, Pepsinsky)..... 127
- New mineral names**....135, 333, 1091
- Ni₃Pb₂S₂, crystal structure of**..... 425
- Nickel-copper-gold mineralogy at Mackinaw Mine, Snohomish Co., Washington.** (Milton)... 287
- Nickeliferous norite of St. Stephen, New Brunswick, petrography of.** (Dunham)..... 711
- Nier, A. O. with Leland, W. T. Isotopic analysis of lead**..... 19
- Niggli, P. Some hornfelses from Saxony and the problem of metamorphic facies**..... 867
- . *Probleme der Naturwissenschaften.* Book review.... 605
- , and Burri, C. *Die jungen Eruptivgesteine des Meditteranen Orogens. (Part 2) Der Chemismus der postophiolitischen Eruptivgesteine.* Book review..... 606
- Nontronite at Bingham, Utah.**
 (Stringham, Taylor).....289, 1060
- O'Brien, W. A.**..... 129
- Opal-like outer layer of coated diamond, nature of.** (Custers). 51
- Optical principles of the diffraction of x-rays.** (James). Book review..... 1086
- Orthoclase-albite-anorthite, and the NaAlSiO₄-KAlSiO₄-SiO₂ equilibrium diagrams (Higazy)**..... 1039
- Overholt, J. L., Vaux, G. and Rodda, J. L. Nature of "arizonite."**..... 117
- Oxammite.** (Fron del) 596
- Pabst, A. Structural classification of fluoaluminates**..... 149
- . Book review..... 608
- Page, L. R. with Cameron, E. N., Jahns, R. H. and McNair, A. H. Internal structure of granitic pegmatites.** Review... 330
- Palache, C. Fayalite at Rockport, Mass.**..... 877
- , with Fron del, C. **Three new polymorphs of zinc sulfide**... 29
- Paragearsutite.** (Smolyaninov, Isakov)..... 334
- Paraguanajuatite**..... 362
- Paratacamite and related copper chlorides.** (Fron del)..... 320
- Paricutin volcano, aqueous emanation from.** (Foshag)..... 749
- Parkerite and shandite, and crystal structure of Ni₃Pb₂S₂.** (Peacock, McAndrew)..... 425
- Parsonite and randite.** Uranium minerals (I). (Fron del)..... 245
- Patiñoite.** (Bandy)..... 135
- Pauling, L.**..... 125
- Peacock, M. A. Hauchecornite.** 287, 440
- . *Remarks on crystallographic nomenclature*..... 882
- , and McAndrew, J. **Parkerite and shandite, and crystal structure of Ni₃Pb₂S₂**..... 425
- Pearl, R. M. New data on lossenite, louderbackite, zepharovichite, peganite and sphaerite**..... 1055
- Pecora, W. T. and Fahey, J. J. Lazulite-scorzalite isomorphous series**.....1, 327
- . Switzer, G., Barbosa, A. L. and Myers, A. T. **Structure and mineralogy of Golconda pegmatite, Minas Gerais, Brazil**..... 889
- Peganite**..... 1055
- Penroseite**..... 360
- Pepinsky, R.**.....124, 127, 132
- Perfetti, N.**..... 1081
- Perovskite from California.** (Murdock)..... 287
- Perrine, E. L.**..... 130
- Petrographic microscope, inexpensive.** (Winchell)..... 130
- Phillips, F. C. Introduction to crystallography.** Book review. 332
- Phosphate-allophane in epidosite**

- from North Carolina. (Jaffe, Sherwood)..... 102
- Phosphates, differential thermal analysis of. (Manly)..... 108
- Phosphuranylite. (Fron del)..... 756
- Photoelastic constants of crystals of $\text{NH}_4\text{H}_2\text{PO}_4$ and KH_2PO_4 . (West, Makas)..... 130
- Pickett, E. E..... 284
- Pisanite from Parys mountain, Anglesey. (Bor)..... 321
- Pitchblende, metamict, from Goldfields, Saskatchewan, and observations on some ignited pitchblendes. (Conybeare, Ferguson)..... 401
- Pitcher, W. S..... 320
- Plagioclase, olivine and orthopyroxene series, correlation of physical properties and chemical composition in. (Polder vaart)..... 1067
- Plagioclases, roentgenographic method for determining. (Claisse)..... 412
- Poldervaart, A. Correlation of physical properties and chemical composition in plagioclase, olivine and orthopyroxene series..... 1067
- Portlandite, natural occurrence of . 614
- Potash-soda feldspars, thermal studies of. (Heald)..... 77
- Prewitt-Hopkins, J. and Fron del, C. Thermal decomposition of zinc sulfide polymorphs..... 116
- Probleme der Naturwissenschaften. (Niggli) Book review.... 605
- Prospector's manuals for radioactive mineral deposits. (Spence, Senftle); (Geol. Survey of Great Britain); (U. S. Atomic Energy Comm. and U.S.G.S.). 133
- Protein crystals, Patterson-Harker maps of. (Wrinch)..... 124
- Pseudomalachite and cornetite. (Berry)..... 365
- Pulszkyite. (Krenner)..... 334
- Pyroxene and garnet, composition and genesis of, related to Adirondack anorthosite-marble contact zones. (Buddington)..... 659
- Pyrrhotine pseudomorphs after pyrite in Ballachulish slates. (Hermann) 1081
- Quartz veins formed by metamorphic differentiation of aluminous schists. (Chapman)..... 693
- Quartzite, synthetic. (Fairbairn)..... 280, 735
- Rabbitt, J. C. "The professor"... 619
- Radioactive oxide minerals, x-ray diffraction data on. (Arnott).. 386
- Radioactivity and mineral deposits. (Keevil)..... 816
- Ramsdell, L. S. and Wolfe, C. W. Unit cell of malachite..... 119
- 125
- . Book review..... 1087
- Randite and parsonite. Uranium minerals (I) (Fron del)..... 245
- Rectorite, alternating layer sequence of. (Bradley)..... 278, 590
- Red gold from San Antonio gold mine, Bissett, Manitoba. (Ferguson)..... 459
- Red radioactive zones north of Goldfields. (Conybeare, Campbell)..... 280
- Renierite. (Vaes)..... 136
- Residual glass of Kap Daussy tholeiite dyke, East Greenland, chemical composition and physical properties of. (Vincent)..... 320
- Rheomorphic breccias. (Goodspeed)..... 282
- Rhodochrosite, ferroan zincian, structure of. (Galloni)..... 562
- Rhodolite deposit, Masons Mountain, N. Car., paragenesis of. (Heinrich)..... 764
- Rock alteration as a guide to ore—East Tintic District, Utah. (Lovering) Book review..... 329

- Rockbridgeite, zincian. (Lindberg, Frondel)..... 1028
- Rock-magma and rock-species. (Shand)..... 922
- Rodda, J. L. with Overholt, J. L. and Vaux, G. The nature of "arizonite."..... 117
- Roebling Medal of the Mineralogical Society of America) Presentation by N. L. Bowen..... 255
- Acceptance by H. E. Merwin..... 258
- Roedder, E..... 288
- Rosenfeld, J. L. Determination of principal indices of refraction on difficultly oriented minerals by direct measurement..... 902
- Rosenholtz, J. L. and Smith, D. T. Crestmore sky blue marble, its linear thermal expansion and color..... 1049
- Ross, C. S. Dark-field stereoscopic microscope for mineralogic studies..... 906
- Rowledge, H. P..... 1091
- Rutile, crystals, flame fusion growth and structure of. (Moore, Merker, Lynd)..... 127
- Sabine, P. A..... 321
- Saleite from Schneeberg, Saxony. (Mrose)..... 525
- Sander, B. Einführung in die Gefügekunde der geologischen Körper. Book review..... 1085
- Schaller, W. T. Miserite from Arkansas; a renaming of natroxonotlite..... 911
- Schenk, E. T. with Campbell, I. Camptonite dikes near Boulder Dam, Arizona..... 671
- Schulman, J. H. with Birks, L. S. Effect of impurities on crystallization of amorphous silicic acid..... 1035
- Scorzalite-lazulite isomorphous series. (Pecora, Fahey)..... 1, 327
- Seaman, D. M. and Hamilton, H. Occurrence of polymorphous wurtzite in western Pennsylvania and eastern Ohio..... 43
- Searlesite from Green River formation of Wyoming. (Fahey); with x-ray notes. (Axelrod).... 1014
- Selenide minerals, description and synthesis of. (Earley)..... 337
- Senftle, F. N. and Spence, H. S. Prospector's guide for uranium and thorium minerals in Canada. Review..... 133
- Serpentine mineral from Kennack Cove, Lizard. (Midgley)..... 1080
- Shand, S. J. Rock-magma and rock-species..... 922
- Shandite. (Peacock, McAndrew).. 425
- Sherwood, A. M. with Jaffe, H. W. Phosphate-allophane in epidosite from North Carolina..... 102
- Si/Al substitution in some silicate lattices. (Harry)..... 321
- SiC, type 10-H, crystal structure of. (Ramsdell, Kohn)..... 125
- Silicates, order of reaction energies at relatively low temperatures. (Gruner)..... 137
- Silicic acid, amorphous, effect of impurities on crystallization of (Birks, Schulman)..... 1035
- Silver Lake talc area, San Bernardino Co., Calif., geology of. (Wright)..... 291
- Slawson, C. B. Twinning in the diamond..... 193
- 131
- Smith, D. T. with Rosenholtz, J. L. Crestmore sky blue marble, its linear thermal expansion and color..... 1049
- Smith, W. C..... 135
- Smolyaninov, N. A..... 334
- Socolow, A. A..... 288
- Söhne, P. G. NababEEP Near West tungsten mine, S. Africa. 931
- Spear, A..... 132
- Specific gravity balance. (Walton). 609
- Spence, H. S. and Senftle, F. N. Prospector's guide for uranium and thorium minerals in Canada. (Review)..... 133
- Spessartite..... 896
- Sphaerite..... 1055

- Stannopalladinite. (Maslenitzky, Faleev, Iskyul)..... 333
- Stewart, F. H..... 1080
- Stobbe, H..... 288
- Story of Jade. (Whitlock, Ehrmann) Book review..... 133
- Stringham, B. Mordenite from Tintic, Utah, and the discredited mineral arduinite.... 601
- , and Taylor, A. Nontronite at Bingham, Utah..... 289, 1060
- 289
- Structural petrology of deformed rocks. (Fairbairn); with supplementary chapters on statistical analysis. (Chayes) Book review..... 1082
- Structure factors, phases and magnitudes of. (Karle, Hauptman)..... 123
- Strunz, H. Mineralogische Tabellen. Book review..... 608
- Sulfides, disorder in. (Frueh).... 282
- Surface area of deep sea sediments. (Kulp, Carr)..... 284
- Swineford, A. with Bates, T. F. and Hildebrand, F. A. Morphology and structure of endellite and halloysite..... 463
- Switzer, G. and Brannock, W. W. Composition of veatchite..... 90
- , Barbosa, A. L., Myers, A. T. with Pecora, W. T. Golconda pegmatite, Minas Gerais, Brazil..... 889
- Syromyatnikov, F. V..... 333
- System formed by points regularly distributed on a plane or in space. (Bravais) Book review. 1087
- System $\text{NaAlSi}_3\text{O}_8\text{-KAlSi}_3\text{O}_8\text{-H}_2\text{O}$ (Bowen, Tuttle)..... 278
- System $\text{Na}_2\text{O-SiO}_2\text{-Al}_2\text{O}_3\text{-H}_2\text{O}$. (Friedman)..... 281
- System $\text{Na}_2\text{O-SiO}_2\text{-H}_2\text{O}$, liquid immiscibility in. (Friedman).... 281
- Tantalum in Harding pegmatite, Taos Co., N. Mex., geochemistry of. (Montgomery)..... 853
- Taylor, A. with Stringham, B. nontronite at Bingham, Utah..... 289, 1060
- Telkes, M. Thermoelectric power and electrical resistivity of minerals..... 536
- Temperature-pressure-concentration diagram for binary systems in which the only crystalline phases are the pure components. (Tunell)..... 321
- Terpstra, P..... 321
- "The professor." (Rabbitt)..... 619
- Thermoelectric power and electrical resistivity of minerals (Telkes)..... 536
- Thompson, R. M. Mineral occurrences in western Canada.... 451
- . Probable non-existence of alaskaite..... 456
- Thorianite. x-ray data..... 388
- Thrailkill, A..... 128
- Tiemannite..... 358
- Tin and indium in mica, as determined spectrochemically. (Ahrens, Liebenberg)..... 571
- Tinguaite dikes, orbicular, near Bryant, Saline Co., Ark. (Hildebrand)..... 283
- Tokody, L..... 333
- Tomlinson, W. H..... 290
- Tourmaline crystals, synthetic, electron microscope examination of. (Barnes)..... 407
- Triclinic cell computations, nomographs for. (Bond)..... 239
- Triclinic crystals, electrical evidence of class of. (Bond).... 131
- Triperiodic functions, one-dimensional representation of. (Donnay, Hamburger)..... 123
- Tunell, G. Temperature-pressure-concentration diagram for binary systems in which only crystalline phases are the pure components..... 941
- , and Murata, K. J. Atomic arrangement and chemical composition of krennerite.... 959
- 289
- Tuttle, O. F..... 278, 290

- Umangite..... 354
- Uraninite, x-ray data..... 388
- Uranium minerals (I) Parsonite and randite. (Fron del)..... 245
- (II) Liebigite and uranothallite. (Evans, Fron del)..... 251
- (III) Saléeite from Schneeberg, Saxony. (Mrose)..... 525
- (IV) Johannite. (Hurlbut)..... 531
- (V) Phosphuranylite. (Fron del)..... 756
- (VI) Walpurgite. (Evans)..... 1021
- Uranium, mineralogy of. (Fron del)..... 281
- Uraninite from pegmatite near Singar, Gaya District, India, age of. (Holmes)..... 19
- Uranothallite and liebigite. (Evans, Fron del)..... 251
- Uvarovite, synthesis of. (Hummel)..... 324
- Vaes, J. F..... 136
- Van Tassel, R..... 136
- Vaux, G. and Rodda, J. L. with Overholt, J. L. The nature of "arizonite."..... 117
- Veatchite, composition of. (Switzer, Brannock)..... 90
- Vincent, E. A..... 320
- Vitaliano, C. J..... 286
- Wadsley, A. D. Synthesis of some hydrated manganese minerals..... 485
- with Mathieson, A. McL. Crystal structure of cryptomelane..... 99
- Wahlstrom, E. E. Melonite in Boulder Co., Colorado..... 290, 948
- Walker Mineralogical Club..... 461
- Walton, J..... 609
- Washken, E..... 290
- Water content of primitive granitic magma. (Ingerson)..... 806
- Watson, K. DeP. Hydrocarbon with cinnabar in British Columbia..... 457
- Wavellite from Llallagua, Bolivia. (Gordon)..... 132
- West, C. D..... 130
- Wherryite, new mineral from Mammoth Mine, Arizona. (Fahey, Daggett, Gordon).... 93
- White, W. S. with Billings, M. P. Metamorphosed mafic dikes of the Woodsville quadrangle, Vermont and New Hampshire 629
- Whitlock, H. P. and Ehrmann, M. L. The story of jade. Book review..... 133
- Wilson, A. F..... 609, 610
- Wilson, F. H..... 126
- Winchell, A. N..... 132
- Winchell, H..... 130
- Wiring diagram of an amplifier for differential thermal analysis (Beck)..... 1090
- Wolfe, C. W. with Ramsdell, L. S. Unit cell of malachite..... 119
- Wright, L. A..... 291
- Wrinch, D..... 124
- Wurtzite, polymorphous, in western Pennsylvania and eastern Ohio, occurrence of. (Seaman, Hamilton)..... 43
- X-ray diffraction tube, demountable, and power source. (Long, Spear, Pepinsky)..... 132
- Yoder, H. S. Jr..... 291
- Yttrium and other minor elements in garnet group, role of. (Jaffe)..... 284
- Zepharovichite..... 1055
- Zincfauserite. (Tokody)..... 333
- Zinc sulfide polymorphs, thermal decomposition of. (Prewitt-Hopkins, Fron del)..... 116
- Zinc sulfide, three new polymorphs of. (Fron del, Palache). 29

